What is claimed is:

 An antimicrobial polymer blend, characterized in that one or more antimicrobial polymers each obtainable by polymerizing a monomer of the formula I

$$H_2C = \begin{bmatrix} R1 & R3 \\ -X-R2-N & R4 \end{bmatrix}$$

where

 $R1 = -H \text{ or } -CH_3$

R2 = branched or unbranched aliphatic hydrocarbon radical having from 1 to 5 carbon atoms,

R3 = H, or branched or unbranched aliphatic hydrocarbon radical having from 1 to 7 carbon atoms,

R4 = H, or branched or unbranched aliphatic hydrocarbon radical having from 1 to 7 carbon atoms,

R5 = H, or branched or unbranched aliphatic hydrocarbon radical having from 1 to 7 carbon atoms, and

X = O, NH, NR5

are mixed with at least one other polymer other than cellulose acetate butyrate and polyesters.

 The antimicrobial polymer blend as claimed in claim 1,

characterized in that the polymer blend is composed of from 0.2 to 90% by weight of one or more antimicrobial polymers.

3. The antimicrobial polymer blend as claimed in claim 1 or 2, characterized in that

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monomer used of the formula I is 2-diethylaminoethyl but \bigvee laminoethyl methacrylate, methacrylate, 2-dimethylaminomethyl methacrylate, 2-tent-butylaminoethyl acrylate, 3-dimethylaminoacrylate, 2-diethylaminoethyl acrylate, 2-dimethylaminoethyl acrylate, N-3-dimethylaminopropylmethacrylamide, N-3-diethylaminopropylmethacrylamide, N-3-dimethylaminopropylacrylamide, or N-3-diethylaminopropylacrylamide.

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antimicrobial polymer blend as claimed 4. The claim 1 or 2characterized in that is 2-tertused of the formula I the monomer butylaminoethy λ methacrylate, 2-diethylaminoethyl A-dimethylaminomethyl methacrylate, methacrylate, 2-tert-butylamin ethyl acrylate, 3-dimethylamino-2-diethylaminoethyl $acrylate \lambda$ propyl 2-dimethylaminoeth χ l acrylate, N-3-dimethylamino-N-3-diethylaminopropylmethpropylmethacrylamid*,

acrylamide, N-3-dimethylaminopropylacrylamide, or

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The antimicrobial polymer blend as claimed in any 5. of claims 1 to 4, 25 characterized in that the other polymer used \comprises polyurethanes, polypropylene, polyolefins, polyethylene siloxanes, polystyrene, polyacrylates, polymethyl polyamides PVC, methacrylate, 30 polyterephthalates.

N-3-diethylaminopropylacrylamide.

6.

The use of the antimicrobia $\cline{1}$ polymer blends as to 5 for producing claimed in any of claims 1 items for medical technology.

The use of the antimicrobial p λ lymer blends 7. for producing claimed in any of claims 1 to hygiene items.

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2 mg 8.

The use of the antimicrobial polymer blends as claimed in any of claims 1 to 5 in surface coatings, protective paints, or other coatings.

- 5 9. The use of the antimicrobial polymer blends as claimed in any of claims 1 to 5 in biocidal formulations.
- 10. The use of the antimicrobial polymer blends as claimed in any of claims 1 to 5 for producing films, tarpaulins, fabrics, or fibers.
 - 11. The use of the antimicrobial polymer blends as claimed in any of claims 1 to 5 in formulations for ointments or pastes.
 - 12. A process for sterilizing cooling water streams, which comprises adding antimicrobial polymer blends as claimed in any of claims 1 to 5 in dispersed form to the cooling water.